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THE AMERICAN PRACTITIONER.

MAY, 1874.

Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Communications.

CLINICAL CONTRIBUTIONS TO DISEASES OF WOMEN.

BY THEOPHILUS PARVIN, M. D.

I propose to narrate five cases of uterine hemorrhage, accompanying each with the treatment pursued and remarks thereon.

CASE I.—Mrs. M., age forty-five, has been quite "irregular" for the past year, the intervals frequently being prolonged to six or eight weeks, but there being no other menstrual derangement. Recently, after a three months' absence of discharge, she became unwell. The flow was moderate and painless for a week, and then became quite profuse, and was accompanied with a good deal of continuous intra-pelvic pain. She had first quinine and then ergot, but neither gave any relief. The second night after the commencement of the metrorrhagia, getting out of bed to empty the bladder, the hemorrhage was so copious that she fainted. Upon vaginal examination—permission to do which had been refused at my previous visits—I found neither uterine displacement nor any great uterine enlargement. There was no time to be lost, for the hemorrhage, checked by her fainting, was now returning. A solution

of muriated tincture of iron—one part of the tincture to eight of water—was immediately thrown into the uterus, and the flow was promptly arrested; it returned again in four hours, and the injection was repeated. There was no subsequent return of the trouble.

CASE II.—Mrs. D., four weeks after delivery of a healthy child, which she nursed, having an abundant supply of milk for it, had metrorrhagia. Rest, ice-cold acid drinks, quinine, ergot, and opium were all tried—some together, others separately—without any material effect in moderating the flow, which, while profuse, was painless. An injection, such as was used in the first case, was then resorted to, repeating it thrice within thirty-six hours, and the hemorrhage became so slight as to be insignificant, in a few more days ceasing altogether.

Remarks.—It is no uncommon thing for metrorrhagia to occur at the climacteric, as it did in the first case; but it is rare for it, when purely functional, to be so obstinate. It generally yields well enough to rest, cold drinks, etc. But where it is persistent—and still more, where immediately or remotely perilous—there is no time to await the uncertain or slow action of remedies administered by the mouth; better apply styptics directly to the bleeding surface, sealing up those ruptured vessels which are pouring out the blood which is the life; and where there is no uterine flexion, and the cervical canal is quite pervious, I believe the best and the promptest method is to throw an astringent injection directly into the uterine cavity.

In the second case, was the flow a menorrhagia or a metrorrhagia? Not the former, because six weeks after parturition is the rule for the return of menstruation in women who do not nurse. This flow was four weeks after parturition, and in a healthy woman who was suckling her infant. It occurred too, I ought to have stated, some days after the complete disappearance of the lochia. The case represents one of the varieties of uterine hemorrhage which the practitioner is not unseldom called to treat. This variety has been attributed to secondary inertia of the womb, to uterine con-

gestion, to an alteration of the blood, and by Hervieux, in his treatise on puerperal diseases, to puerperal poisoning in some cases. But the true cause, as Dr. Le Blond* observes, has been given by Joulin; viz., the condition of the circulation in the newly-formed mucous membrane of the uterine cavity, the net-work of capillaries being so thin that rupture readily occurs under blood-pressure. Standing, walking, or other exertion, or even mental excitement—possibly too simply uterine pain—may cause a slight congestion that soon terminates in a hemorrhage.

Le Blond remarks that these hemorrhages are readily controlled by rest, the horizontal position, ergot, digitalis, and intra-uterine injections. The first two are all-important; the third we have little faith in as a remedy for this variety of metrorrhagia; the fourth we have never tried; and the last we believe to be best of all. It is hardly possible that the uterus should be so flexed, or the cervical canal otherwise have its caliber diminished, to contra-indicate the free use of intra-uterine injections. Still more are we inclined to advocate such local therapeutics in any case of this kind where the hemorrhage is at all profuse, since the two agents which are the most valuable—worth all other internal remedies, we believe—in some varieties of menorrhagia and metrorrhagia, are comparatively, if not completely, inert in this; those two agents are quinine and ergot.

A further remark may be made as to this variety of hemorrhage, that ordinarily it is painless and persistent, in these respects differing from that which occurs from retention of a portion of the placenta; this generally coming on suddenly and with pain, and then a temporary cessation, the attacks renewed time and again until art or nature rids the uterus of the foreign body or else the patient dies, the latter a contingency which has happened even when the placental fragment was no larger than a hickory-nut.

* Churchill on Diseases of Women. Second French edition. Paris, 1874.

Case III.—Mrs. V., thirty-five years of age, has been perfectly well for years, has given birth to one child, never had leucorrhœa; menstruation is quite regular, but is usually protracted to ten days, and sometimes is quite profuse; was suddenly attacked on the fourth day of her flow, which was rather freer than usual, with acute pain in the lower part of the abdomen, followed by faintness and prostration, her skin becoming quite cold and pulse exceedingly weak; nausea and vomiting, vesical and rectal tenesmus. The next day reaction had occurred, and she had some fever and tympanitis, with great tenderness in the hypogastric and left iliac regions. Two weeks after her medical attendant, upon his first vaginal examination, discovered a large and hard tumor posterior to the uterus, which was thereby displaced forward.

I did not take charge of the case, nor see the patient indeed, until six weeks after the illness commenced. Manifestly this was a case of pelvi-peritonitis consequent upon retro-uterine hæmatocele, or, if you please, *metrorrhagic pelvi-peritonitis*. It is foreign to my present purpose to detail the treatment instituted; but of course the next monthly flow was anticipated even with more than the usual anxiety which the practitioner entertains with reference to this function in cases of pelvi-peritoneal inflammation, for it may be the crisis, or probably still oftener the aggravation, of this disease. It commenced without special suffering, and thus continued for five days, when it became both profuse and painful. Four grains of quinine were given every three hours until four doses were taken, and the discharge, by this time quite moderated, ceased in about twenty-four hours thereafter.

Remarks.—The case just mentioned illustrates the value of quinine in this form of menorrhagia. It is probable that this agent has a power, as Dr. Bartharez has said,* of acting directly upon the vaso-motor nerves and also upon the muscular fibers of the uterus. We may remark, in passing, that Gueneau de Mussy, who has been one of the chief advocates for the use of quinine in uterine hemorrhage, has also successfully used this medicine in hæmoptysis. But returning, quinine should not be given, says this authority, in hemorrhage threatening abortion; for by causing uterine contraction

* *Du Traitement des Hemorrhagies de Matrice par le Sulfate de Quinine.* Paris, 1872.

it may hasten the accident we seek to prevent.* One of the most striking illustrations of the value of quinine in diminishing uterine congestion is given by Dr. Vital,† where an inverted uterus was reduced in the course of a week one third by the internal administration of this remedy.

Case IV.—Mrs. B., forty-one years old, married five years, but has never become pregnant, consulted me last September for an abdominal enlargement and menorrhagia. This enlargement proved to be a uterine fibroid. The enlarged uterus reached quite up to the umbilicus, and my recollection is the tumor was situated in the anterior wall. Menorrhagia had existed for nearly four years, and her health had become much impaired by it. She suffered considerable pelvic distress, and also pain and uneasiness in the lower limbs from the downward pressure of the growth. The greatest abdominal circumference was thirty-nine inches.

As the patient lived at a distance from me and could not remain under my treatment, I wrote to her physician, Dr. Cushman, of Graysville, Ind., advising the hypodermic use of ergot, and suggesting the following formula for the solution:

℞. Ext. ergot fl. (Squibb's), . . . } āā fl. ʒ ij;
Aquæ destillat., ... }
Glycerinæ, ... fl. ʒ jss. M.

S.—Fifteen to twenty or thirty minims each day to be injected subcutaneously in the hypogastrium.

February 17th Dr. Cushman wrote me as follows: "The hypodermic injections were commenced on October 13th, using fifteen minims each day for twenty days. The remedy being well tolerated I soon increased the quantity to thirty minims, and most of the time after the first three weeks the injection has been made twice a week; oftener, however, if the menorrhagia returned. When the treatment was commenced she had a great deal of pain and uneasiness in the lower extremities. These symptoms have entirely disappeared. Her abdominal circumference is now thirty-four

* Confirmatory of this view is the following from Dr. Barnes's recently-published work on diseases of women: "I am informed by Mr. Cockburn, an eminent surgeon practicing in India, that in that country quinine is specially apt to cause abortion in women of delicate fiber. Dr. Fordyce Barker has given satisfactory evidence of its power as an oxytocic."

† *Des Reductions de L'Inversion Uterine consecutive a la Delivrance.* By Dr. Ch. Fr. Weiss. Paris, 1873.

inches. Her general health has greatly improved. The tumor can not now be felt above the pelvic brim, and she thinks it entirely removed." I need not add a word to the testimony of Dr. Cushman—whose efficient attentions in this case have had so much to do with the fortunate result—as to the thus demonstrated value of ergot hypodermically in uterine fibroid.

Case V.—Mrs. N. has been married about fifteen years, and for nearly that length of time has been suffering from at least two uterine fibroids; for nearly that length of time has been trying to get rid of them by various medical treatment. Last summer the annoyance and distress from the uterine enlargement were so great, the metrorrhagia—alternating with copious leucorrhœa—was so frequent and profuse, that she determined to be again treated. I used ergot hypodermically, the strength of the solution being as given in the previous formula, the quantity never more than twenty minims, and the injections made not averaging more than once in two days. In six weeks the abdominal circumference was lessened from forty inches to thirty-four, the leucorrhœa materially diminished, and the metrorrhagia entirely arrested, menstruation becoming normal. She was so greatly relieved that she did not care to continue the injections, for at each place of insertion a small abscess was almost sure to occur. Nevertheless she was not cured, and a future resort to the remedy with a much longer continuance will be absolutely necessary.

Remarks.—We might add to these cases two others occurring in our practice last year, in which hypodermic ergot was used, and in which the results were quite as satisfactory as in these.

To Prof. Hildebrandt,* of Königsburg, the profession is indebted for this most important application of ergot. "In a series of nine cases of intra-uterine tumor he made use of ergotine subcutaneously injected, and in a short time the troublesome symptoms subsided, and after long-continued treatment the tumors themselves decreased. In four the diminution was free from any doubt, and in one the tumor completely disappeared."

In the admirable "Address in Obstetrics" at the last meeting of the Pennsylvania State Medical Society its author,

* British and Foreign Medico-Chirurgical Review, January, 1873.

Dr. Goodell, alludes to several cases where favorable results have followed this treatment.

Recognizing the great value of this mode of treating uterine fibroids, in what form shall the ergot be used? Prof. Hildebrandt used a solution containing three parts of ergotine and seven and five tenths parts each of glycerine and water. In this country ergotine has not occupied any prominent place in therapeutic use, and most of those who have used hypodermic injections of ergot seem to have selected the fluid extract. All, however, so far as we have observed, use glycerine. Is this vehicle objectionable? I am indebted to my friend, Dr. T. J. Bowls, of Knightstown, Ind., not only for the suggestion but for the demonstration that the glycerine is a needless and may be an injurious addition; for in the case of a patient with a uterine fibroid who consulted me several weeks ago, and who since the 31st of January has been having ergot used subcutaneously — the solution I directed consisting of equal parts of the fluid extract, glycerine, and water—by the doctor, he found the injection invariably followed by painful inflammation and threatening abscesses. Dr. Bowls, after using the solution mentioned several times, omitted the glycerine, and states that nothing but a slight blush of redness follows the use of the new solution; this blush disappearing in a few hours, and there being comparatively no sorenesss. This observation of the doctor's is certainly of great value, especially as the elimination of the glycerine in no way lessens the efficiency of the remedy, as the satisfactory progress of the case under treatment by him proves.*

*The case under Dr. Bowls's treatment is another illustration of the value of ergot in uterine fibroids. He writes me, February 16th, as follows in reference to the diminution of the tumor: "On the crest of each ilium I made an indelible *macula*, and have carefully taken the measure each morning from one to the other over the center of the tumor." I shall not give the successive measurements which Dr. B. sends me—merely the two extremes; that is, the first and the last. On the 31st of January the distance between the points mentioned was fourteen and a half inches; on the 16th of February twelve inches.

If indeed the subcutaneous injection of ergot will relieve half the unfortunate victims of fibroid tumors of the uterus—we believe the proportion will prove still greater—actually curing many of these, the discovery of Professor Hildebrandt surpasses any other new therapeutic application of the last five years, and is one of the most important ever made.

The question might arise whether this treatment could not be of avail in some doubtful cases of abdominal tumor, where the difficulty lies in deciding as to whether the morbid growth is uterine or ovarian? *Cura ostendit morbum* is a maxim oftentimes of great value. But unfortunately in just those uterine tumors—fibro-cystic—which are most likely to be mistaken for ovarian cysts the agent would fail in producing good. Most probably it is only in mural and submucous fibroids that ergot hypodermically can be of any benefit; and thus not only fibro-cysts would be left out, but also subperitoneal fibroids, as well as general fibrous enlargements of the uterus; though upon this last point our mind is by no means satisfied, for probably the atrophy of fibrous tumors under ergot is owing not exclusively to the excitement of the muscular contractility of the uterus, thus cutting off blood-supply indirectly, but also to an immediate action upon the blood-vessels themselves, thus directly diminishing blood-supply.

Nevertheless there may be some germ of truth in the suggestion in regard to the possible utility of these injections for diagnostic purposes; as, for example, in determining, should other means fail, between certain different varieties of uterine tumor.

NOTE.—Since writing the above I have received a copy of the *Medical and Pharmaceutical Notes*, by Dr. Squibb, republished from the *Proceedings of the American Pharmaceutical Association* for 1873; one of these notes being devoted to *ergot and its preparations*. Dr. S. believes there is no such thing as ergotine, and that the various substances so called only represent the activity of the

drug, as they represent more or less perfectly its entire composition. Dr. S. advises for hypodermic use a watery solution of the solid extract, obtained by evaporating the officinal fluid extract.

INDIANAPOLIS, IND.

HALLUCINATION.

BY W. J. ELSTUN, M. D.

Assistant Physician in the Indiana Hospital for the Insane.

"Is this a dagger which I see before me,
The handle toward my hand? Come, let me clutch thee:
I have thee not, and yet I see thee still.
Art thou not, fatal vision, sensible
To feeling as to sight; or art thou but
A dagger of the mind, a false creation,
Proceeding from the heat-oppressed brain?
I see thee yet in form as palpable
As this which now I draw."

Hallucination is not readily definable, although many of its prominent characteristics are sufficiently easy of comprehension to place some knowledge of it within easy grasp of the generally well-informed. The especial difficulty in the way lies in distinguishing true hallucination, or that form of hallucination which is a feature of insanity, from accidental, induced, temporary, or what is called false hallucination. The following is the definition of the term given by one of the highest authorities: "By hallucinations we understand subjective sensorial images, which, however, are projected outward, and thereby become apparently objects and realities. . . . It is a hallucination when I see human forms while in reality no man is near, or hear a voice which has not spoken." *

* Griesinger's Mental Pathology, p. 84.

"Hallucinations are false perceptions of the senses—the eye, the ear, the nose, and so on. The hallucinated patient thinks that he sees in the blackest darkness or hears a voice through any number of thick walls, whereas his seeing or hearing is entirely subjective, taking place altogether within his own head, without any excitation conveyed to his organs from the outer world." *

Other features of insanity, represented by perverted sensorial impressions, bear a close relation to the preceding.

Illusion, while nearly related to hallucination, is the transformation of something seen, heard, etc., into some other form, person, object, sound, or voice. The commonest furniture of the patient's room may to his sight be converted into animals, monsters, angels, etc. Friends cease to be known or recognized, and strangers are made to take their place. Hearing and the other senses are alike perverted. Illusion may then be stated to be the eccentric effect of an external object operating upon a disordered sensorium, which disordered sensorium evolves a perverted impression, which in its turn is recognized by the conscious mind as though it were a legitimate result of the ordinary function of the sensorium. Hence it comes the mind is unable to distinguish its own error. The effect of hallucination upon the conscious mind is the same, the difference being that the disordered sensorium creates instead of transmits a perverted impression.

Delusion also partakes of some of the features of both hallucination and illusion, being in fact often intimately complicated with one or both. Delusion is a false perception, and operates more directly through the reasoning faculties to pervert the judgment, and consists in a fixed erroneous perception or idea, which, as in hallucination and illusion, the mind is incapable of correcting either through its own reasoning or the reasoning of others.

Hallucination alone is not necessarily a proof of insanity,

* Insanity, etc., by Blanford, p. 153.

being producible by narcotics, etc., as opium, belladonna, hasheesh, etc.; but there must be other evidence of insanity. Like many other features in the diagnosis of insanity, hallucination is to be considered in its relations to the general condition of the brain and mind. The influence of narcotics or other direct cause being excluded, are the hallucinations to be accounted for in any other manner? Is there acute disease, delirium, or other temporary cause? Do the hallucinations return and influence the mind after they have already been recognized in their absence as imaginations? Persistence or continued recurrence of hallucinations must furnish decided evidence of insanity, and it is presumable that many cases are real insanity which subside in a short time and are not so considered, while a case exactly similar up to the period when recovery takes place in the first progresses or is protracted and developed into a pronounced case of insanity, dating back to the beginning of hallucinations similar to those of the case in which the disease was arrested.

The causes of insane hallucinations are various, and may be said in general terms to be any thing which exhausts for a prolonged time the brain as a general organ. A large number of cases arise from emotional conditions, which, being prolonged, exhaust the brain and impair its functions. Protracted loss of sleep, whether voluntary or due to emotional or physical complications, is a common cause. Peripheral irritation by its reflex influence upon the brain is supposed sometimes to be capable of developing hallucinations.

The attempt to locate the exact point in the brain where the disturbance of function which produces the hallucination exists is as vain as is the endeavor to determine the precise spot in the organ where any given ideas may originate. It has been modestly expressed thus: "The seat of hallucinations of sight must be the internal expansion of the optic nerves. Anatomical observations have yet to be made on this point. In dissections the thalamal surfaces, the corpora

quadrigemina and their neighborhood, also the centrum ovale, should be carefully examined."* As to the seat of hallucinations of the other senses science is even more indefinite than it is in regard to that of sight.

Authors claim that hallucinations of sight occur more frequently in acute than in chronic insanity, and hallucinations of hearing more frequently in chronic insanity;† also that hallucinations of hearing are generally indicative of a more serious and less curable affection of the brain.‡

Five years' observation of insanity, embracing over three hundred acute cases annually, has not confirmed these statements. I have not observed that hallucinations of sight are more frequent than those of hearing. On the contrary, as far as I have seen, hallucinations of hearing predominate in all cases, whether acute or chronic. Neither does hallucination of hearing, when alone or predominant, indicate a more serious or less curable form of insanity. The other statement, however, that hallucinations of hearing predominate in chronic insanity, I believe to be correct. My own estimate of the proportion of hallucinations of hearing to sight in acute cases is at least as two to one, and in chronic cases probably five to one. Almost all acute cases with hallucinations present both those of sight and hearing, while hallucinations of the other senses occur in but a limited number of instances. But few cases are admitted in which hallucination is not associated with more or less general disturbance of the mind.

As in almost all forms of disease, hallucination is decidedly paroxysmal, and I do not find that books lay sufficient stress on this feature. Cases in which hallucination is the prevailing manifestation usually have intervals of freedom from mental disturbance, when the patient will converse rationally and calmly until a return of the paroxysm, showing that there

* Griesinger's Mental Pathology, p. 98. † Blanford, p. 171.
‡ Griesinger's Mental Pathology, p. 98.

is no general impairment of the faculties, but a sensitiveness in a certain direction which by some unaccountable influence is at times brought into activity and again allowed to relax into composure.

Shakespeare, who seems to have possessed all knowledge, including that of medicine, must have been familiar with this form and phase of mental phenomenon when he puts into the mind of a murderous king these vivid recurrences of horrid hallucination:

> "Hence, horrible shadow!
> Unreal mockery, hence! Why, so; being gone,
> I am a man again. Pray you, sit still."

Mr. —, whose excessive devotion to business had produced watchfulness, took chloral at will to induce sleep. His mind at length became much obscured, and he had symptoms of general paresis. In a week after admission consciousness began to return at intervals, but he still had paroxysms of violent excitement, in which he tried to get away from something which he saw and heard. After one of the most violent of these he described the sensation as similar to nightmare, in which he thought he was in a cellar with the building falling upon him, and at the same time saw and heard the entire body of the legislature of Indiana rushing upon him.

Another patient fancied he saw great numbers of flying angels, who were often changed into beautiful but always white birds. During these hallucinations the patient would look steadily upward at an angle of about forty-five degrees, and consequently saw nothing but the plain white ceiling. This patient heard the screams of his wife and children being murdered; heard and saw men preparing to take his own life and that of his friends. He heard voices calling him, and would go hurriedly to the place where he heard the voices. If detained, he would not give attention to those around him, but listened to the distant voices, answering that he would come soon. He had also delusions, one of which was that

his bowels had been cut with a large knife, and he would go about holding his hand on the part he supposed to be cut. During the severity of these paroxysms he was very nervous and usually in profuse perspiration, exhibiting extreme mental and physical agitation. During partially lucid intervals he would talk sensibly of most things, but declined to converse respecting his paroxysms of hallucination.

Mrs. —, who was naturally vivacious, but emotional, had suffered for two years from acute physical disease, which not yielding to treatment had caused her much distress from thinking she could not be cured, but must suffer indefinitely and die. This emotional disturbance, and probably some reflex influence upon the brain from her local disease, caused insanity, mainly indicated in hallucinations, which affected all the senses. She had a sensation of fire burning over the entire surface of her body, and appeared to suffer intensely. From her windows she saw, smelt, and tasted herds of filthy swine. A black cow was her special apparition. This cow would come into her room, and in the midst of her efforts to drive it out she would be suddenly herself converted into the identical black cow. She would now exhibit great uneasiness and disgust, but not violence. When she became herself again the cow was gone, but she smelt on her own breath the breath of the cow and tasted in her mouth the taste belonging to the cow. She would now expectorate violently and with the utmost disgust. She had nearly lucid intervals, in which she recognized these hallucinations, but said she could not free herself from them. She had a delusion that she would live but a short time, usually expressed as "not until to-morrow morning." She recovered from every thing but this latter delusion, and left the asylum in good spirits, saying "it did not seem to her she would live to get home after all."

INDIANAPOLIS, IND.

CLIMATE IN PULMONARY CONSUMPTION, AND CALIFORNIA AS A HEALTH-RESORT.*

BY LEWIS ROGERS, M. D.

A brief visit to California in November and December, 1873, enabled me to make some observations and inquiries in regard to that wonderful state as a health-resort for pulmonary invalids. Much has been reported and written upon this subject in the last few years by both professional and non-professional persons, and the attention of pulmonary invalids has been strongly and hopefully directed to that interesting portion of our country. I desired to see and judge for myself as far as this could be done in a brief visit. This desire was intensified by some of the incidents of the trip. The various trains from the north, east, and south converge at Omaha, and one consolidated train is daily made up containing the passengers going west. The train upon which I traveled was a long one, consisting mainly of sleeping-coaches filled with through passengers, many of whom were in quest of health. An association of a day or two brought me into contact with sufferers from pulmonary consumption in its various forms. Among these were some in the very last stages of the disease. One was a refined and cultivated lady from Boston, the wife of a physician, who had been taken from her bed upon the preceding cold Sunday night and placed in a sleeping-section, from which she was only removed when compelled by change of cars. One change was made at Chicago, a second at Omaha. I saw her in her berth, after leaving Omaha, suffering from cough, dyspnœa, pleuritis, loss of appetite, and all the discomforts incident to confinement in a crowded apartment, in which there could be neither quiet nor privacy. I have rarely seen a greater

* Read before the Kentucky State Medical Society, April, 1874.

sufferer. At Ogden the Union Pacific Road terminates and the Central Pacific begins. Here she was compelled to change again. We reached this point at 6 P. M., and were detained two hours. For a portion of this time this exhausted woman was placed in a cold and cheerless reception-room until her sleeping-section could be secured. When we reached Stockton, on Sunday afternoon, she was utterly worn out and could go no further, having crossed the continent in six days. Another patient was a gentleman, from one of the eastern cities, emaciated and hectic, with lungs disorganized by tubercular softening. He was unable to complete the journey, and was left at Ogden or some other equally inhospitable and desolate place. A few days before, the celebrated pugilist, Heenan, had died on the train, somewhere between Denver and San Francisco, from pulmonary hemorrhage.

My experience during this trip was doubtless the expression of that which occurs on every train. Such cases as these are well calculated to excite serious and thoughtful inquiry as to what California promises in the cure of pulmonary consumption to those who incur such hazards and make such sacrifices to reach it. This is an inquiry which may be raised not only in regard to California, but every other place of note in this relation. There is a strong popular as well as professional faith in change of climate in the treatment of pulmonary consumption. Is this faith founded in fact? Do those invalids who formally travel from place to place in search of some healing climate more certainly get well or more surely prolong their lives than those who remain at home? Is the sum of human health and happiness increased or diminished by change of climate, considering in such an estimate the several elements of permanent cure, prolongation of life, separation from home, from old friends and associations, the hazards and vexations of travel, the countless anxieties and fears, the pecuniary sacrifices often very great? Is the good done by change of climate so great, so certain, as to entitle it

to the prominent place which it holds as a remedial agent? Let every physician of sufficient observation appeal to his experience carefully and answer these questions.

I have seen much of pulmonary consumption, and have no hesitation in expressing the opinion that in many cases the disease is entirely arrested, and in many others a fatal termination postponed for years. I am equally confident that these fortunate results have been as often obtained in cases which have not enjoyed the influences of a formal change of climate as in those who have had such a questionable privilege. Facts will warrant me in going even further, and in stating that I have observed more recoveries among those who did not change their place of residence than in those who did. This opinion is seemingly opposed to most of the authorities on the subject of change of climate in the treatment of pulmonary consumption, but it is not really so when the true meaning and intent of the best authorities are accurately interpreted. I believe that judicious travel and a climate selected with a careful adaptation to each individual case may be productive of infinite good, just as injudicious travel and the selection of a climate not properly adjusted to the requirements of the case may do infinite harm. Just here the great difficulty lies. Travel and climate are powerful therapeutic agents, and require care and precision in their administration, as other powerful agents do. Cod-liver oil is beneficial, eminently so in many cases, but in others it disagrees to such an extent as to prove hurtful. Alcohol as a remedy for consumption affords a still stronger illustration of the point which I seek to enforce. Its indiscriminate and copious administration in all cases, as if it were endowed with some specific properties antidotal to consumption—and this has been and is still the practice with many—is calculated to inflict and has inflicted great harm. Given judiciously, it is a remedy often of precious value; and so of arsenic, iron, the hypophosphites, and the entire list of remedies which

have found a place in the therapy of this disease. A thorough knowledge of the requirements of each case, and a wise adaptation of travel and climate to these requirements, are the means by which good results may with some certainty be secured.

This is the doctrine theoretically taught by the authorities, and it is the true doctrine; but practically it is not enforced, and hence the unfortunate failures in many — in much the larger proportion indeed—of the unhappy subjects of climatic changes.

Fashion has its influence in medicine as in all the affairs of life. Remedies are in vogue for a time, and are lauded for their wonderful curative powers, and then sink into unmerited disrepute possibly, or pass wholly out of notice. So has it been in regard to various noted places in their climatic relations to pulmonary consumption. A few years ago Madeira was the favorite resort in Europe, then Nice, and now Mentone. In this country Florida long held the leading position, paling for a time before Minnesota, and now again re-asserting its claims to superior consideration. For a few years a large proportion of invalids of this class sought Minnesota, but at the present time this state does not maintain the curative celebrity which it enjoyed. At the present time Colorado and California are attracting a large share of attention, and thousands of invalids have gone thither with hopes even more sanguine than animated the pilgrims to the other resorts alluded to. Sufficient time has not elapsed to determine how far their hopes will be realized, how far the glowing accounts of the beneficial influences of these climates will stand the test of direct and extended trial. I do not doubt what the result will be. The history of all other climates will be repeated in these, for the reasons which I have endeavored to set forth. There is no climate in the world, and there can not be, which possesses specific powers in the cure of pulmonary consumption. Here the great error

exists. All the climates mentioned possess virtues which are adapted to some conditions and some cases, and are equally hurtful to others. The former improve, have life prolonged, or get well, and are heralded all over the world; the latter perish and are forgotten. The few who are so fortunate as to recover give unmerited repute to the climate; the many who die do not tell their story.

Consumption can not be successfully treated in the Procrustean bed of any one climate. The indiscriminate resort of patients in the various stages of the several forms of the disease to the same climate must necessarily lead to failure in a very large proportion of the cases. This irrational course affords an explanation of what I have ventured to express as my own experience, that more pulmonary invalids recover who stay at home and are properly cared for than when they subject themselves to the uncertain and unknown chances of change of climate. In a vast proportion of instances unknown conditions of disease are subjected to unknown conditions of climate.

Let us consider a few of the elements of the problem to be solved when the question of climate is raised in regard to a case of pulmonary consumption. We shall see that it is a most complex question. In the first place, the precise nature of the case must be known. We must determine to which of the several varieties of the disease it belongs; whether it is the result of an inherited diathesis, which surely sooner or later discloses itself in the form of a disorganizing disease, even under the most favorable circumstances, and without any apparent exciting cause immediately provoking its development. These diathetic cases are common, the organism being innately endowed with a vitality sufficient only for a limited number of years. Or whether it belongs to that class of cases which has its origin in inflammatory processes—bronchitis or pneumonia, or broncho-pneumonia—which recent pathologists assign as frequent causes of con-

sumption without any hereditary predisposition. Or, again, whether the result of special modes of life and occupation, or the septic influences incident to a residence in a crowded city or badly-ventilated and foul habitations. These factors must enter into the solution of the question of climate. The special condition of the case at the time must be carefully considered. The stage of the disease, the extent to which the lungs have been disorganized, the condition of the digestive organs, the constitutional symptoms, all these and many other important details must be estimated in the decision of the question. The special susceptibilities of the case must be known; whether a cold or a warm, a moist or a dry, a stimulating or a relaxing climate is most likely to agree. These are points which should, if possible, be predetermined, but which often are not or can not be until actual experiment is made, probably too late to rectify any error of selection.

Assuming that a thorough knowledge of all these essential matters has been secured, the qualities of climate adapted to the special requirements must be known to exist in the place which may be selected. In regard to most of the health-resorts of pulmonary invalids, both in this country and in other parts of the world, we are supplied with much reliable information. We have hygrometrical and thermometrical tables for each day and week and month of the year, the diurnal variations, the electrical conditions, the prevalent winds, the geological and other telluric features. Without entering into further details of this kind, we have such data as would seem sufficient to enable a physician to select a climate adapted to the case in hand; and this is sometimes done, and the result is most fortunate. Such instances are exceptional, however. My own experience tells me that a large proportion of pulmonary patients who seek health in distant climates fail to find the adaptation so essential, and are sadly disappointed in securing the anticipated benefits.

If this be so when a climate is selected by the aid of all the light that can be shed upon the selection, how much more certain must be the disappointment, and how much more disastrous the failure, when patients rush indiscriminately to such places as may be the fashion for the time, under the guidance of inadequate evidence and false statements? It is a suggestive fact, indicating strongly the uncertainty of the adaptation of the means to the end, that patients rarely realize their expectations in regard to the benefits of climate. The place to which they go, though chosen with never so much care, rarely fails to be deficient in some essential conditions. It does not prove what it has been represented to be; the season often happens to be exceptionally bad; weather such as was never known before is encountered; and this is the experience of a large proportion of cases year after year. The truth is that no climate is invariable. Every year there are fluctuations, and the future can not be accurately predicated upon the past. I have sent patients to Florida, to Minnesota, and other health-resorts abroad, and with few exceptions the result has not been favorable. They have returned with the report that the season or the year was an exceptionally bad one, or that they had gone too late for the beneficial influences of the climate, or that they had been damaged by improper and badly-prepared food and the want of the comforts connected with home.

A due estimate of these latter causes of failure must be made when sick people are sent to strange places. However well adapted a climate may be in itself, it will fail to do good unless the food be just what it should be, in quality and quantity, and this is very seldom the fact. The sick can rarely get what they need in hotels and boarding-houses, or that kind of food essential to their proper nutrition. They who have ample pecuniary means can not do so, while the larger class, who are compelled to exercise economy, often suffer very seriously in this regard. If sick people be com-

pelled to deprive themselves of many things essential to their comfort because of their cost, the good effects of climate and travel will be more than neutralized. No invalid should ever travel unless prepared to spend money without the harassing sense that he is not able to afford the large outlay necessary to his comfort. I am now taking a practical view of the matter, for I have known the depressing and damaging influence of this kind of thing upon many people.

There are other topics of a kindred character which may be adverted to here as modifying and sometimes counteracting the good effects of climate, and which should be estimated in sending invalids to distant regions. There are many people so constituted that they are miserable when long absent from home. Homesickness will more than neutralize the good effects of a climate perfect in its adaptation.

Again, in health-resorts of much repute the society must consist largely of invalids suffering with pulmonary disease. It is not possible to say how far the atmosphere of a place crowded with consumptives may be contaminated by morbid effluvia, but it is altogether probable that such contamination does exist to some degree, and that it must prove more or less reciprocally hurtful. It can not be doubted, however, that the moral influence of such association must be damaging. Despite the hopeful view that consumptives generally take of their condition, they can not fail to feel more or less acutely the death of those with whom they may have been associated, or to indulge in depressing sympathy with such as may seem to be incurable.

The scope of this paper indicates in very clear terms my opinion that the formal migration of pulmonary invalids to the various distant health-resorts which acquire or have acquired celebrity has not been productive to them of benefit as a constant or even frequent result. I have given reasons why this was not likely to be the effect, even when the places were selected with careful regard to climatic adaptation, and

less so when such migration was a mere haphazard venture. This opinion is not inconsistent with a very great confidence in what I have called judicious travel. In the treatment of all chronic diseases, in many functional and even organic affections which have not gone to the extent of structural disorganization incompatible with life, and especially in the treatment of pulmonary consumption in its first and sometimes in its later stages, we have no remedial agencies comparable with judicious travel; such travel involving, in its manifold power, change of climate, of scenery, of food and water; of mental, moral, and physical states; of all the forces which influence organic nutrition. Such travel may be desultory and various, varied to suit the exigencies of each individual case, long or short, to near or more remote points, to warm or cold, to high or low regions, to the country or to cities, as taste, inclination, money, or special requirements may dictate. Patients may travel in this way and return home from time to time, and derive more surely all the beneficial influences possible in their cases without any of the damaging effects of homesickness, monotony, bad food, incompatible climate, long banishment to a distant and strange land, without suffering what Holden so happily denominates "ostracism for consumption."

The opinions which I have long entertained, and have endeavored in an imperfect way to indicate in this paper, were not modified by my observations and inquiries during my recent brief visit to California. With a special purpose of great interest to me, I consulted a number of the most intelligent physicians of San Francisco in regard to most of the parts of California which have been spoken of as eminently useful in their influence upon pulmonary consumption. My inquiries were more particularly directed to San Diego, Santa Barbara, San Bernardino, Los Angeles, and San José. Southern California, as we know, has acquired very great repute in the last few years, and has been spoken of as

destined to become the great sanitarium for this and many other forms of pulmonary disease. It is to this portion of the state that thousands of people are now going for the restoration of their health, either as temporary sojourners or permanent residents. All of the towns mentioned are thronged with people of this kind, particularly in the winter season. To my surprise, I did not find a single resident physician at all enthusiastic in his praises of Southern California. They all expressed the rational view of the subject which I have expressed. I asked them if they were in the habit of sending their patients to Southern California, and they replied that they did so occasionally and for a brief period of the winter, but that they preferred for most of their cases the high and cool resorts of the Sierra Nevada Mountains. This preference is expressed by Dr. F. W. Hatch, as the result of observation and statistical deduction, in his two able reports upon the Climatology and Diseases of California to the American Medical Association. These physicians, however, claimed for California what probably exists nowhere else—the possession of every variety of climate which has been found useful in the various forms and stages of consumption, a variety which admits of a ready and very perfect adaptation to individual peculiarities and requirements. A very few hours of travel will place a patient in whatever climate he may desire; warm or cold, dry or moist, on the mountains or the plains, inland or on the sea-shore, in sheltered valleys or breezy uplands. This variety and facility of adaptedness exists nowhere else in this country. In Florida every kind of warm climate may be found suitable to that class of patients who require warmth; but there are no mountain-ranges, no elevated regions in which the influences of a low temperature and a diminished atmospheric pressure can be enjoyed, conditions of climate now deemed so valuable in a large class of consumptive invalids. In Minnesota we find the cool, dry, bracing air of a moderately elevated country,

with the absence of the warm, equable temperature so necessary to a large class of invalids. In Colorado we have cool, dry, invigorating air, with a low barometric pressure, without the equable warmth so congenial to many delicate constitutions. In California all of the best qualities of these several resorts can be readily found, while those which are likely to prove hurtful, after a brief trial, can be avoided.

San Diego is distinguished for its warm and remarkably equable temperature, the diurnal variations being very slight, and the changes due to the seasons so inconsiderable as to be harmless. Its proximity to the sea renders the air salt and somewhat humid, unless the wind blow from inland, and in the winter season cold fogs are sometimes troublesome for a portion of the day. Many of the physicians of San Francisco prefer San Diego to any other place as a winter residence for a certain class of patients. From what I could learn, it is deficient in variety and abundance of the best kinds of food. The general supply of some of the most essential articles is brought from a distance.

Santa Barbara enjoys a like equable temperature, somewhat colder than that of San Diego, with a salt and somewhat humid air, and occasional but less frequent and warmer fogs. The weather is sometimes too warm and relaxing for some consumptives, patients "deliquescing," as I heard a physician remark in regard to the effect of that climate upon a distinguished member of the medical profession from New York.

San Bernardino enjoys a temperature very similar to that of San Diego and Santa Barbara, but being more remote from the coast its air is more dry, free from sea impregnation, and fogs do not so frequently occur. Stockton and Visalia are inland towns, with a mild, dry, and equable air, and very agreeable to many invalids to whom sea-air is offensive.

San Francisco is generally conceded to be injurious to pulmonary invalids, though the months of April, May, and

June are unexceptionable in most of the qualities of a delightful climate.

My observations and inquiries about San José and its vicinity, and particularly the warm belt of the foot-hills, led me to think most favorably of them as a place of temporary or permanent residence for many pulmonary invalids. Apart from its qualities of climate, San José is a lovely city, in a valley of unsurpassed beauty and fertility, with the mountain-scenery of the coast-range on either hand, good society, and all the refinements and luxuries of life.

Sufficient time has not elapsed to determine what influence the varied climates of California may have upon the permanent residents of the state, upon the inhabitants born and reared there, in the prevention or production of pulmonary consumption. No fair inference can be drawn from mortuary statistics, for the constant influx and death of consumptives from other parts of the world must vitiate any present deductions from such statistics. Even if the line could be accurately drawn between cases produced in California and those imported, hereditary predisposition or taint may fairly be supposed to extend its influence through several generations, and be legitimately held to modify or oppose effects strictly due to climate. Many of the present citizens of the state are the progeny of consumptive ancestors, who settled there in search of health. Even if California should be found not more exempt from phthisis than other places, or absolutely more productive of it, this could not be held as valid proof of its unfitness for strangers seeking it as a health-resort; for, as Dr. Walshe pertinently remarks, the apothegm "*pessimum ægro cælum est, quod ægrum fecit*" can not be accepted unconditionally. "Probably the earth offers no more favorable spot to the tuberculized British patient than Nubia, yet the native Nubians are extensively destroyed by phthisis. Again, the climates of Australia almost invariably prove serviceable to delicate Europeans, natives of northern latitudes; yet

pectoral disease is far from being unknown among the natives of Australia of British stock." These facts conclusively disprove the prevalent popular idea of specific virtues for consumptives in any climate.

In times which now seem old, so vast have been the strides of modern enterprise, but which really are within the limits of a half decade, "a trip across the plains" was accounted one of the most efficacious of the means for the prevention and cure of consumption. Such a trip doubtless proved beneficial often, but not infallible. While many were improved, many perished by the wayside. This trip, which once consumed six months, and derived its usefulness in part from the toil, exposure, wild adventure, and danger incident to it, can now be made in six days with ease, comfort, and safety. It yet presents, however, strong claims to consideration as a remedial agent. The travel from Omaha to the Golden Gate is as delightful as travel can be. The road is under almost military discipline, the cars capacious, comfortable, and elegant, the officials polite, the eating-saloons superior to those on many of the eastern roads, and the companions of the voyage often very interesting. The novelty and variety of incidents and scenery produce and sustain a constant state of mental exhilaration and dispel all sense of fatigue, and the traveler reaches San Francisco, refreshed and invigorated, after an unbroken journey of more than two thousand miles. If an invalid choose to do so, he can pause for a time at Cheyenne, Laramie, or some other place of interest, or make most agreeable and instructive detours to Denver, Salt-Lake City, Nevada City, the mines, or the lakes and mountains on either hand. Apart from all climatic change, such a trip as this, judiciously made, can not fail to be productive of most salutary results.

LOUISVILLE.

A CASE OF ANAL FISTULA PRESENTING SOME UNUSUAL PECULIARITIES.

BY ELY M'CLELLAN, M. D.,
Assistant Surgeon U. S. A.

January 3, 1874, I was invited to examine Mr. A. S., aged twenty-seven years, living near Lebanon, Ky., who had been suffering from a fistula in ano for some six years.

The person of the patient having been exposed in position for examination, my attention was arrested by an umbilicated depression directly above the sulcus of the nates. The surface around this depression presented no appearances differing from that of the surrounding skin, and the patient, in reply to my inquiry, informed me that it had existed all his life. Upon the left nates, about an inch and a half below the anus, two fistulous openings were discovered, into the lower of which a probe was passed and without difficulty pressed to a considerable depth. A second probe passed through the second opening impinged at once upon the first instrument.

A careful examination of the rectum failed to determine any communication with the intestine. The exploration of the fistulous tract was pushed, when the point of the exploring probe emerged from the depression above the sulcus.

January 17th, assisted by Drs. W. W. Cleaver and W. E. Mattingly, of Lebanon, a grooved director was introduced within the lower fistulous opening, and was with some little effort carried nearly to the umbilicated depression before noted, when its progress was arrested and the point could not be protruded. The tissues were divided to the point of the director, when the resistance which had been experienced was discovered to arise from a wad of hairs, which effectually blocked the advance of the instrument. They being removed,

the director was easily passed through the remainder of the tract, and the operation was complete.

A close examination of the exposed surface disclosed a sharp splinter of wood, one and a quarter inches in length, lying in the tract of the fistula. The wad of matted hairs removed from the tract weighed several grains.

The causation of this fistula is evident. The umbilicated depression, which has been described, was congenital. The body of this gentleman was most bountifully supplied with hair. Of these hairs, shed from time to time, a number collected in the depression, in which at some time and in some way unknown to the patient a splinter of wood was also inserted, and the fistulous tract was commenced.

A point of some interest is to be found in the fact that the father of this gentleman died after having suffered for some years with a fistula in ano. The subject of this paper (the second generation) was born with the pouch as described; and in the third generation, in the person of a child of Mr. S. two years of age, a pouch similar to that on the person of the father is congenital. On the person of this child a probe is now readily passed to a depth of a quarter of an inch.

LEBANON, KY.

UTERINE FIBROIDS.

BY DRS. SHACKELFORD AND HOPPEL.

N. R., a negress, aged about fifty years, was in as good health as usual on the evening of the 26th of January, and retired to bed a little wearied by a day of hard work at the wash-tub. She slept well, and was alive at four o'clock A. M. on the 27th inst. When her husband awoke, an hour or two later, she was dead. We were then requested by the coroner

to make an examination for the purpose of ascertaining the cause of her death. Assisted by Dr. Caldwell, of this place, we proceeded to work.

The body was well nourished. Rigor mortis was strongly marked, though the extremities were quite warm. The abdomen was distended as if she were advanced in pregnancy seven months; slightly tympanitic. The thoracic cavity was opened first for the purpose of examining the heart, as we surmised that the sudden death was to be there explained. In removing the heart the pericardium was ruptured, and about two ounces of fluid escaped into the cavity. The organ was almost double the usual size, being both hypertrophied and dilated, the latter being in excess of the former. The semilunar valves of the aorta showed a few vegetations. The muscular structure was softened, tearing readily under a small force. There was neither obesity nor fatty degeneration. The lungs were sound, so far as examined, though greatly pressed upon by the diaphragm, which was forced upward by the contents of the abdomen. Extending then our incision into the abdominal cavity, we found all of the intestines distended with gas. The whole venous system of the cavity was in a varicose condition, many of the vessels being one eighth of an inch in diameter, and some of them even larger; and at their terminal extremities were many sacks containing a thin serous fluid, of which there was a small quantity in the cavity. There were no adhesions between the different parts of the intestinal canal, but the omentum was found adherent to a large tumor on the lower part of the abdomen, on the right of the median line.

The upper and anterior portion of this tumor gave evidence of the presence of fluid, which had several years before caused it to be mistaken for an ovarian one. The hand passed down beside it revealed a hard and dense neck, and, surrounding this and growing from it, it came in contact with firm, resisting nodules in every direction. The ovaries at that time

could not be found. The whole mass, including a portion of the vagina, was removed.

The uterine cavity measured about five inches in depth, and was extremely irregular; the os externum was patulous; the neck when laid open was full two inches in length; the os internum was perfectly normal. The incision was then carried through the fundus, exposing the internal surface of the uterus. To the anterior portion of it was attached, by a broad pedicle, a small mucous polypus, which probably accounted for what her friends supposed was her menstrual flow. The mucous membrane gave evidence of chronic endometritis. Numerous rounded masses of irregular shape projected into the cavity. They were slightly compressible. A closer examination of them showed them to be uterine fibroids. They occupied every conceivable relation to the uterus and pedicle. The one first noticed on opening the abdominal cavity was evidently subserous, having grown from the fundus, being attached by a long pedicle. This one, without its pedicle, weighed five pounds. When opened about six or eight ounces of straw-colored fluid escaped. It contained no albumen.

This tumor appeared to be composed of three distinct and almost equal portions—viz., the fluid already mentioned, a white fibrous or connective tissue, and a yellow elastic tissue—the latter two gradually merging into each other. Attached to the pedicle were many smaller tumors; some smooth, others nodulated. These were enveloped generally in a fibrous sheath, from which they could easily be enucleated. Some had short, small, round pedicles; others long, broad ones; and yet others none at all. The uterine walls were distorted in every possible way by numerous interstitial as well as by a few submucous tumors. Three or four of them were undergoing calcareous degeneration. In one the process of cretefaction had progressed to such an extent as to render the tumors incompressible by any ordinary force;

in the others the earthy salts had been deposited without any structural arrangement. In none of them could ossification be detected. The smallest tumors found weighed three grains. The rest, excluding the large one, were of all weights up to a pound. They numbered in all fifty-seven, being just twenty-two more than the largest number reported in the valuable work of Dr. Thomas. While removing the tumors, by diligent search on each side of the mass an ovary was found. The one on the left side was changed but little, atrophy having apparently just commenced. The remains of several Graafian vesicles, with their walls thickened and corrugated, were discovered. The right ovary was altered in size and shape from having been more compressed by the fibroids. The vagina was atrophied.

TRENTON, TENN.

Reviews.

Transactions of the Michigan State Medical Society. For the year 1873.

The first paper in this modest volume is the address by the president of the society, A. B. Palmer, M. D. The subject of the address is *Law and Intelligence in Nature, and the Improvement of the Race in accordance with Law*—almost too large a subject to be treated in so brief a space. Nevertheless, let us say that the address is scholarly, earnest, and philosophic, and well worthy its author.

Two reports on *Hygiene*—the one on its *laws with reference to the government of schools*, by Dr. Hitchcock; the other, *with reference to construction, ventilation, etc., of school-buildings*, by Dr. Kedzie—are valuable papers. Dr. Jenks reports a case of *coccyodynia*, in which he removed three bones of the coccyx; Dr. Bliss a most interesting case of *fracture of the ribs with dislocation of the spine* successfully treated; Dr. J. F. Noyes contributes a paper on *embolism of the central artery of the eye*, and Dr. Eugene Smith one on *aural catarrh.*

But the Michigan doctors did something more than this. First, we find in the Transactions a very well-written report upon the question, *Shall the medical profession or the medical schools control admission to the ranks of the profession?* This report advocates the former part of the proposition with arguments founded upon the general practice pursued in the method of admission in the two other learned professions, and upon the fact that diplomas from medical colleges may be dishonestly or otherwise unworthily obtained. The report

declares that "our remedy lies in the direction of organization—perfect organization of the profession. Societies every where, competent censors, rigid examination of all new candidates with or without diplomas, a higher grade of literary culture, and an unflinching loyalty to science." These are brave words indeed; and when it is declared that all candidates with or without diplomas should be examined the key-note of a real advance is struck. Nevertheless, no very decided hope of better things is awakened in our bosom. As long as doctors will take incompetent students into their offices, and send them to colleges because cheap, convenient as to location and easy as to graduation, there is no hope that these preceptors and their illiterate pupils will organize for the purpose of purifying the stream which annually issues upon the profession from the colleges. "Organize" indeed! It has been the cry for years, and to-day not one tenth of the doctors of the United States are active members of any medical society. We believe in medical societies where gentlemen can meet for the cultivation of professional knowledge and mutual improvement; but debating-clubs governed by cliques and coteries, wire-workers and tricksters, arenas for personal strife or professional declamation, we do not care for. Nay more, we have no great faith in medical societies as courts of justice or pieces of moral machinery to elevate the profession and enlighten the people in their duties and conduct. Nevertheless, we would be glad to see, however hopeless our desire, the very ends which this committee advocate in their report accomplished.

But our Michigan friends were not content with this report. They did something more, unanimously passing the following resolution: "Resolved, that a representative committee of five members of this society be appointed by the president to confer with the board of regents and the medical faculty in respect to the relations of the Medical Department of the University to the medical profession of the state, and in respect

to the future conduct of said department under any contingencies necessitating a change in its organization."

This committee went straightway to their work, and on the 24th of June made their assault upon the regents and faculty. They tell them that the medical profession has depreciated much more proportionately than the clerical or legal in popular estimation; also stating, while the *popular* average of intelligence and culture has advanced, the *professional* has remained stationary, if it has not retrograded.

Again we have adduced as one of the reasons for the relatively greater depreciation of the medical profession in popular esteem the fact that as a profession it exercises no visible control over admission to its ranks. Another cause is found in the unseemly quarrels, "undignified disputes, of school with school and of doctor with doctor." And here let us say that these quarrels, these disputes, are a curse to the profession itself, as well as an injury to it in public esteem. Real learning is not proud, boastful, and pugnacious; it is humble, any thing but puffed up; it is charitable and tolerant. Truth is not a sword to cut and hew down all opponents, to rush upon hostile ranks with the shout of battle and exterminate them. It is a light gradually illuminating the darkness, gently dispelling it; working silently as the sunlight, but like it working with invincible power, like it accomplishing the grandest results.

But returning, the committee assert this as their thesis: "*that adequate medical knowledge, made accessible to all, shall be required of all, of whatever school, who attempt to practice medicine or surgery as a profession.*" To secure this end they propose, first, that the legislature shall enact a law which "shall require all new candidates for recognition and employment as medical men to be examined and approved in all the fundamental and essential branches of medical knowledge by a board or boards of medical experts." It is very justly observed that this must be done without the exclusive recog-

nition of any school or practice, since it is as impossible in this country to have a *state medicine* as a *state religion;* and an invitation is given to "all honorable and self-respecting representatives of all sorts of medical practice" to join in demanding the desired legislative enactment. There is a charming catholicity in this, and we are glad the Michigan doctors have outgrown the littleness of soul which leads some to denounce as quacks and humbugs all who may differ with them as to modes of practice; indeed we begin to have some faint glimmerings of the millennium shining through Michigan pines.

However, we must pass on and notice some of the things said by the committee more directly to the regents. These things are under four heads; viz., requirements of admission, of instruction, of graduation, of general policy. In discussing the first head the regents are asked to require of students entering the medical department at least the same qualifications demanded in entering the literary department, except perhaps Greek; and they are asked too in these very words: "What opinions do intelligent and cultivated people form of a university whose medical graduates betray a disgraceful ignorance even of the branches of a common education, and who on all common questions—questions outside of mere medical knowledge, and on which all educated people stand on a level with the best professional man—daily prove themselves to be grossly illiterate? What must be the judgments of intelligent people concerning the new doctor just come among them, and fresh from the University, whom they find to be ignorant of the history of his state or of the United States? Reasoning as they will from the known to the unknown, what will be their estimate of the *medical* knowledge and skill of that doctor who spells calomel with a *k* and jalap with a *g?*"

Really if such "orthographic mutineers" are graduated by Ann Arbor, whose professors are salaried, what is to be

hoped for from unendowed institutions, since a gift blindeth the eyes and diploma-money is always paid in current funds!

We have not time to further follow the committee in their much plain-speaking to the regents of the University; nevertheless, we must give an extract from the remarks made under the heading *requirements of general policy*, partly because it enunciates a principle which we advocated years ago in the Western Journal of Medicine, but chiefly because we believe it is true, and the sooner its importance is recognized by the profession the better. "The teaching function and the graduating power should be divorced, and the latter conferred upon a body who, whether elected or appointed, shall visibly represent to the people the body of the medical profession. We do not question the right of Deity to pronounce the verdict of 'good' upon his own handiwork, but in human affairs it has not been found advantageous to allow a mechanic to pass judgment on his own job. Whenever the revenues of professors are swelled by lengthening the annual list of their graduates we have abundant reason to know that their diplomas quite too often represent lucre and not learning. So also when the rivalry of schools and the vanity of professors disturb their scientific judgment of a student's qualifications, the diploma is quite as apt to be an exponent of faculty pride as of a student's faculty." T. P.

Annual Report of the Supervising Surgeon of the Marine Hospital Service of the United States. JOHN M. WOODWORTH, M. D.

To most medical writers the appendix to this report will possess the greater interest.

The first of the papers in this appendix is upon *Hospitals and Hospital Construction*, and is from the pen of Surgeon Woodworth. It is preceded by an engraving of the United

States Marine Hospital at Chicago. The paper, which includes some excellent illustrations, is a valuable contribution to the principles which should govern and the methods which should be used in hospital construction, and as such will be consulted with advantage by all engaged in the erection or management of hospitals.

Next is an elaborate paper, by Dr. J. M. Toner, upon *the distribution and natural history of yellow fever as it has occurred at different times in the United States.* A map accompanies the paper, indicating the region in which yellow fever has occurred either in an epidemic or a sporadic form. Dr. Toner believes that elevation above the sea-level is an important factor both in the prevention and in the cure of yellow fever. The map giving the altitudes of places visited by yellow fever shows at once the relation of this factor to the disease, and thus we learn that the disease in an epidemic form has in the United States never been observed in places having an elevation of five hundred feet. There are tables showing the meteorological conditions at Shreveport and at Memphis during visitations of yellow fever, and also one giving the localities in the United States where the disease has occurred since 1668, with elevation above the sea-level, commencement and termination and mortality of the malady, and authorities. The paper evinces access to and familiarity with numerous authorities, and patient research. Its valuable statistics, as well as its clear exposition of fact, gives it more than ephemeral importance.

The yellow-fever epidemic of 1873, which is the next contribution, consists chiefly of reports from surgeons at New York, Mobile, Cairo, Louisville, etc.

A case of double diaphragmatic rupture and hernia is reported by Dr. Thomas T. Minor, and this interesting report is enhanced in value by some interesting observations from Surgeon Woodworth appended to it. Dr. W. remarks that the practical interest of this case for the medical officer of

the service lies rather in the direction of prophylaxis when phrenic hernia is diagnosed, since it is doubtful if any surgical interference could ever be of avail. Further on he gives the following as the more prominent physical signs of this hernia: "1. Cardiac palpitation to the right of its normal location; 2. Thoracic dullness or resonance in unusual regions on percussion; 3. The absence of respiratory murmur and the presence of borborygmi in the chest; 4. Prominence and immobility of the affected side of the thorax. To these may be added such symptoms as liability to dyspnœa on exertion, pains in the hypochondria or chest, colics, costiveness, and frequent nausea and vomiting." Armand Desprez* mentions that in some cases no vesicular murmur has been, but borborygmi have been, heard in the inferior portion of the chest. He also dwells upon the cyanosis observed, and suggests a point that may be of considerable importance: viz., *a priori*, we should expect to find puerile respiration upon the unaffected side.

Dr. C. N. Ellinwood, of San Francisco, has a paper upon *strictures of the urethra*. His observation makes him believe that urethral injections have little to do with their production, except when these strictures are at or near the external meatus, they being frequently caused in these localities by wounding the mucous membrane with the syringe. The treatment he follows in all idiopathic strictures situated any where in the urethra beyond two and a half inches from the external meatus is by the "divulsion" method described by Gouley in his recent admirable work.

The last two papers—*the sailor and the service at the port of New York*, and *report on the river-boatmen of the lower Mississippi*—do not claim any special consideration in a medical journal. T. P.

**Hernies Diaphragmatiques*, vol. xi of the *Nouveau Dictionnaire de Médecine et de Chirurgie Pratiques.*

Medical and Pharmaceutical Notes. By E. R. Squibb, M. D.

The first of these notes is on the *preservation of hypodermic solutions.* Dr. Squibb's investigations have led him to conclude that these solutions, being made, as they should always be, with distilled water, can be preserved by the addition of one seventh — or, better still, one sixth — of one per cent of carbolic acid.

The second note is upon *ergot and its preparations*, and contains many facts of considerable professional interest, one or two of which we have mentioned in another part of this journal.

The third note, on *rhubarb*, is more interesting to druggists and pharmacists than to doctors; but the fourth, on *physicians' pocket-cases*, contains some very useful suggestions that medical men will do well to avail themselves of. Dr. S. speaks of its having become in recent years not uncommon even in our large cities for physicians to carry a pocket-case containing small quantities of a few important medicines, such as are needed most promptly and can be dispensed most easily at the bedside. Possibly there is another reason, not mentioned by Dr. Squibb, for physicians carrying with them at least a few medicines: the practice, while causing the physician some trouble but no great expense, would be quite economical for the patients, and thus an argument which some of these have for employing homeopaths would be done away with.

To return, Dr. S. states that two objections to the pocket-cases in use are the want of proper labeling and the absence of means for measuring out medicines. To obviate these objections labels have been prepared, embracing forty-four articles of the active materia medica, and minim measuring tubes, constructed and graduated to single minims, have been made. Almost all the preparations embraced in the forty-four are liquid, not the least extraordinary of which is a

"compound tincture of ipecacuanha," each minim of which is equivalent to a grain of Dover's powder. Good old Dr. Dover would rest uneasily in his grave if he could read what Dr. Squibb has written of his famous "powder" in "a fluid form!" Really we do not believe Dr. Squibb is of Celtic descent, justifying such an apparent bull. It is evident, however, from the therapeutic means he devises, that were he a practitioner he would entirely reject solidism and be a devoted humoralist.

The remaining notes are without any interest to the physician. T. P.

Clinical Researches in Electro-Surgery. By A. D. Rockwell, A. M., M. D., and Geo. M. Beard, A. M., M. D. New York: Wm. Wood & Co.

This book of seventy-two pages is as modest in its pretensions as in its size. It is not an advocate of electro-surgery. The judicial tone adopted by the writers here as elsewhere can not be too warmly praised. On the whole, the deductions from the cases recorded are favorable to the employment of electrolysis and galvano-cautery in a limited field. Some of the conclusions with respect to the comparative advantages of the two methods just named were quoted in a recent number of this journal. The authors find that their cases of skin-diseases presented the following features worthy of note:

"1. The rapid relief of the itching and pain of eczema, prurigo, and herpes by local applications.

"2. The relieving and curative effects of *central galvanization* not only in prurigo, but also and especially in eczema, which has not generally been supposed to be so closely dependent on the nervous system.

"3. The fact that herpes, prurigo, and eczema yield in some instances very rapidly, while psoriasis and ptyriasis are quite slow and obstinate.

"4. The tendency of some cases to relapse even after they have been greatly benefited, while in other cases—notably in eczema and herpes—the cure is more or less permanent."

We forbear to filch the practical hints incidental to the clinical narrative, which of themselves give a useful character to the book, and which will interest particularly electrical and surgical specialists. J. W. H.

Lectures on the Clinical Uses of Electricity. By J. R. Reynolds, M. D., F. R. S., etc. Second edition. Philadelphia: Lindsay & Blakiston. 1874.

But few changes have been made in this work since the first edition, and only a few were needed, as the progress of clinical electricity has been rather slow during the last three years. The author was careful to avoid all mooted points, and time has shown with what discretion he separated the tares from the wheat. The rarer applications of electricity are merely alluded to, while the ordinary ones are fully considered. It is taken for granted that the reader is familiar with the technical difficulties of the apparatus employed. This allows much more space for the strictly medical aspects of batteries than one would expect in a book so small. As it does not cover the whole ground, it can not be recommended as a complete library of the science; but when one has worked with batteries, or has at hand other resources for learning how to work them, he may find this little book very profitable reading.

Clinic of the Month.

CROTON-CHLORAL HYDRATE *(tetracyl-chloral hydrate).**— This interesting substance was accidentally discovered by G. Kramer and A. Pinner, in 1870, when endeavoring to utilize the so-called "forerunnings" *(Vorlauf)* obtained as a waste product in the rectification of crude spirit for alcohol. These forerunnings were found to contain, besides alcohol and small quantities of an organic alkaline salt of acetic acid and of a sharp, odorous liquid, a considerable proportion of aldehyde, which they expected to utilize in the manufacture of chloral. This expectation seemed justified by the theories of the formation of chloral generally accepted, according to which the first reaction of chlorine upon alcohol is to produce aldehyde, which by the further action of chlorine is converted into chloral; the difference in the various theories being mainly confined to the manner in which the aldehyde is so converted. Pure aldehyde was therefore acted upon by dry chlorine, and when the reaction was completed and the product was purified it proved to be entirely distinct from ordinary chloral, and was determined to be *croton-chloral.*

Preparation. — One hundred grammes of pure aldehyde (boiling-point 69.8° to 71.6° F.) is placed into a capacious flask, to which a reversed condenser is fitted, and perfectly dry chlorine is passed through the contents for four days. In the beginning the flask is kept cool by a refrigeratory mixture; but as the reaction, which is exceedingly violent at first, slackens the cooling mixture is substituted by a water-bath, and this is very gradually heated, and toward the end of the

* Compiled for the American Practitioner from German sources by C. Lewis Diehl.

process brought to the boiling-point. The product—consisting of a clear supernatant liquid and a dark-colored heavy oil, which congeals upon cooling—is transferred to a flask and subjected to distillation. The distillate, which passes between 194° and 464° F., is then subjected to fractional distillation, when a product is obtainable which distills completely between 325.4° and 329° F., and is found to be pure croton-chloral.*

Properties.—Croton-chloral is a liquid possessing a peculiar odor, which reminds faintly of common chloral. It forms with water a hydrate, which is crystalline, and with alcohol an alcoholate, which is amorphous. Its composition is $C_8 H_3 Cl_3 O_2$.

Croton-chloral hydrate is produced when croton-chloral is dissolved in warm water. Upon cooling it crystallizes in white, silky, glistening leaflets, which are sparingly soluble in cold water, but freely soluble in hot water and in alcohol; and from its alcoholic solution it crystallizes unchanged. It melts at 170.6° F., and is readily vaporized with aqueous vapor; its vapor being exceedingly irritating upon mucous membranes, and especially upon the eyes.

Action of alkalies.—By the action of alkalies upon croton-chloral or its hydrate it is not, as might be expected, split into allyl-chloroform and formic acid, but forms instead dichlorallylen ($C_6 H_2 Cl_2$) and formic acid.

Dichlorallylen is a pleasantly odorous oily liquid, which boils at 172.4° F.; but is quite unstable, losing its pleasant odor, acquiring that of phosgene, and eliminating chlorine.

Relation to common chloral.—Croton-chloral bears the same relation to crotonic aldehyde and to crotonic acid that does common chloral to acetic aldehyde and to acetic acid. In this connection it is of interest that crotonic acid of the com-

* My authorities omit to indicate the use of sulphuric acid to dehydrate and purify the croton-chloral hydrate formed primarily, such being undoubtedly the heavy oily layer which solidifies on cooling.

position usually assigned it ($C_8 H_5 O_3$) does not exist naturally in croton-oil; and that consequently the artificial derivatives, based upon an acid of the composition $C_8 H_5 O_3$, are wrongly named after crotonic acid. An acid of composition $C_8 H_5 O_3$ has been obtained by Geuther and Fröhlich from both artificial and natural cyanide of allyl (vol. oil of mustard) by the action of potassa, and is by them called *tetracylic acid.* Hence it is suggested that croton-chloral is more properly named *tetracyl-chloral.*

Croton-chloral hydrate possibly a constituent of commercial chloral hydrate.—It will be noted from the above that physically the croton-chloral hydrate differs from the ordinary chloral hydrate by its sparing solubility in cold water and in the exceedingly irritant character of its vapor. Chloral hydrate, to the contrary, is freely soluble in water, and its odor when pure is not irritating. Nevertheless, nearly all commercial chloral hydrate has a more or less irritating odor, and it is inferred that this is owing to the presence of croton-chloral, formed either from aldehyde contained as impurity in the alcohol or from aldehyde generated by the action of chlorine. No experiments have, however, been made in this direction to prove the correctness of the inference.

The formation of croton-chloral from aldehyde is readily explained by the observation already made by Kekule, that acetic aldehyde is readily transformed into crotonic aldehyde by the presence of even minute quantities of muriatic acid. Under these circumstances two equivalents of acetic aldehyde $C_4 H_4 O_2$ unite with the loss of two equivalents of water, and form one equivalent of crotonic aldehyde=$C_8 H_6 O_2$.

Properties and pharmaceutic exhibition of commercial croton-chloral hydrate.—I have before me a sample of croton-chloral hydrate purchased in New York; the original source is unknown. It is a white, powdery substance, of a pearly luster, apparently crystalline, and when triturated in a mortar has the appearance and feels to the touch like pulverized valerianate

of zinc. Its odor reminds of ordinary chloral hydrate and iodoform; does not seem to be more pungent than that of ordinary commercial chloral hydrate, and not as much so as some samples I have noticed. Its taste is bitter and aromatic, reminding of the odor of iodoform. It is more soluble in cold water than I should have expected from the characteristic, "sparingly soluble," given it by its discoverers. Thirty minims distilled water dissolve one grain readily. If another grain is added to this solution, heat is required to dissolve it, and upon cooling and standing a short time a copious crop of well-defined crystals is obtained. Subsequent experiments proved it to be soluble in between twenty-two and a half and twenty-five parts of water at a temperature of 60° F. In alcohol it was found to be freely soluble.

From these experiments it follows that croton-chloral hydrate (commercial) may be dispensed in aqueous solution of a strength corresponding to two grains in the fl. drachm. A very pleasant vehicle for its administration seems to be the simple elixir as prepared in our city, and the following prescription illustrates the manner of its use:

℞. Croton-chloral hydrate, . gr. viij;
Warm water, ... fl. ʒ j;
Simple elixir, ... fl. ʒ vij. Ft. solut.

Owing to the alcohol contained in the simple elixir, a larger quantity than two grains to the fl. drachm could, if desirable, be incorporated and held in solution by the above mixture.

The sources from which the main portion of the above paper on croton-chloral is compiled are *Jahresbericht d. Chemie*, by Nauman, 1869–70; and *Jahresbericht d. Pharmacie*, etc., by Wiggers and Husemann, 1869–71. The original papers are to be found in the *Bericht der Deutschen Chemischen Gesselschaft*, Berlin, 1869–71.

The Treatment of Otorrhœa.—The pathology of the auditory apparatus, says M. Ménière, is in general too much

neglected by those who practice general medicine and surgery; and in a large number of cases, even when perfectly simple and uncomplicated, the practitioner is uncertain what plan of treatment should be recommended. Even in cases where it can not be expected that the treatment should equal that of the specialist, who is rapid in his diagnosis and expert in the use of instruments, it is yet the duty of every surgeon to take care that the affliction should not be allowed to become incurable, and to give some alleviation to the sufferings of the patient. Take, for example, the case of discharge from the ears, so frequent in childhood and youth. What is the procedure often adopted? They are left alone to run their own way, in fear lest the sudden suppression of the discharge should injure the general health of the child; or some injections are tried, often very imperfectly accomplished, and if the discharge still continues no further trouble is taken till the infirmity has become incurable. M. Ménière cites a case of a tall, fair, but not scrofulous youth, twenty years of age, who was sent to him, and who at the age of seven or eight had been attacked with discharge from the ears after some eruptive fever. No systematic treatment had been adopted for him, but occasionally injections had been practiced. He passed his childhood, and at eighteen came to Paris. The discharge continued, and steady increase of deafness was observed. On examination M. Ménière found that serious lesions of the auditory apparatus were present. The membrana tympani was destroyed, vegetations had sprouted from the walls of the tympanic cavity, and there was a purulent discharge. Appropriate treatment being commenced, great improvement resulted, but of course without change in the irreparable damage that had taken place, and which might certainly have been prevented had proper care been expended upon him while a child.

In all cases of otorrhœa great attention must be paid to the constitution, so that scrofula, syphilis, or other consti-

tutional disease should be treated by appropriate general measures. In this lies an essential element of success in all instances. Systematic injections play an important part; they can not do harm, and they are almost certainly productive of immense advantages. Cleanliness is a capital point in the treatment of otorrhœa, and nothing is better for this purpose than pure warm water injected from an ordinary syringe with moderate force, the nozzle being placed fairly within the meatus. The caoutchouc pears may be used, but the stream they give is less continuous and strong than that from a syringe. In the early stage, and when the otorrhœa is accompanied by sharp pain, the treatment is but little different. A good injection is composed of warm decoction of marsh-mallow, in which one or two poppy-heads have been boiled; this may also be poured into the affected ear, the patient resting his head on the sound side. A leech or two may also be applied behind the ear, the second being allowed to attach itself to the same point seized by the first. The whole ear may be covered with a poultice of linseed-meal on which a little laudanum has been sprinkled. M. Giampiétre recommends as a topical application the instillation into the meatus of two or three drops of a liquid containing one sixth of a grain of aconitina in one ounce of distilled water. M. Ménière rejects the instillation of laudanum, ether, or chloroform. He objects also to the instillation of oil of almonds and other similar fluids so commonly employed. He thinks they often serve to aggravate the original evil. Where the pain is very intense he adopts the plan of subcutaneous injections of morphia, etc. Otorrhœa of old-standing is more frequently complained of by patients than acute attacks, and in their treatment warm injections are always indicated. The fluid injected may either be pure water or a very weak solution of alum, one to five grains in two ounces. Solutions of sulphate of zinc and acetate of lead may also be used of the same strength. No other treatment will effect improvement

if injections, which remove pus and the secretions of the meatus, are neglected. A little piece of wool dipped in a weak solution of carbolic acid may be placed in the orifice of the meatus after each injection. A little weak solution of nitrate of silver may be employed in the same way, and may also be injected once a day, the ear having been first thoroughly cleansed by the injection of warm water, and dried by the subsequent introduction of a little warm, dry wool. Neither of these topical applications, and especially of carbolized glycerine, is painful or harsh, as they simply cause a tickling sensation in the ear, and the secreting surface is thus modified without harm. M. Ménière frequently uses the following lotion, the ear having been previously injected with water and dried: water, 200 parts; glycerine, 100 parts; sulphate of zinc, 5 to 6 parts. Another lotion, which may be used even when there is great vascularity at the bottom of the meatus, and even in cases of perforation of the tympanum, is acetate of lead, 5 to 15 parts; water, 300 parts. In both cases a few drops may be allowed to remain in the ear for eight or ten minutes.

By the use of these means it is not to be expected that every case of otorrhœa will be cured, but at all events the disease will be prevented from getting indefinitely worse, and the patient placed under the most favorable conditions for special treatment. *(Journal de Médecine.)*

Subcutaneous Injection of Extract of Ergot in Fibromyoma of the Uterus.—Prof. Heilbrandt (*Schmidt's Jahrb.*, Bd. 156) injected ergot subcutaneously in the case of a woman, thirty-three years of age, who suffered from menorrhagia, fluor albus, and occasional pains. Three years before she observed a tumor in the hypogastric region, which was diagnosticated as intra-uterine fibroma. The tumor had the size of a uterus in the seventh month of pregnancy. All means for checking the hemorrhage having failed, and the tumor

retaining the same size after one year, a syringeful of a solution of ergotine (3.0 ad glycerine et aq. dest. āā 7.5 gramm.) was daily injected for two weeks. The next menstruation was less painful, and the quantity diminished. The tumor diminished from week to week, and had disappeared within fifteen weeks. Menstruation, however, had returned in the same degree as before the disappearance of the tumor. In eight other cases Heilbrandt observed the same result. His explanation is that the ergotine causes diminished nutrition of the tumor by giving rise to a convulsive condition of the vessels supplying the tumor, also by the compression exerted by the contracting walls of the uterus; general fatty degeneration and resorption therefore result. Intra-uterine tumors are hence more easily removed than subperitoneal by means of this injection. These injections are less painful than with the solutions of Langenbeck, and are to be made in the umbilical region or the hips. (New York Medical Journal.)

Transfusion.—The Paris correspondent of the Irish Hospital Gazette writes that M. Béhier is decidedly in favor of transfusion, and is surprised that it is not more generally adopted in practice. He prefers "immediate transfusion," and the injection of blood in as natural a state as it is possible to procure it—that is, with all its elements; but the difficulty is to find proper instruments to carry out the operation. Defibrinated blood is most objectionable for the following reasons: it has been proved by experiment that blood in this condition circulates less easily in the blood-vessels, and may become the starting-point of hemorrhage in the parenchyma. Moreover, the blood-corpuscles when once removed from the living organism are extremely short-lived, and defibrinated blood must therefore be dead blood. But it may be objected that defibrinated blood has been employed with some success; to which the reply is that the same success may attend the injection of any fluid, as experimentally proved by M. Vulpian.

He lays down the following precepts for the practice of transfusion: 1. Inject the blood slowly; 2. Inject only a small quantity at each operation.

Transfusion, he continues, has been condemned in certain quarters, owing to accidents that have followed the operation; these are convulsions, vomiting, rigors, cephalalgia, and syncope. The latter is the most serious, but this may be avoided by injecting the blood slowly and with prudence. There is, however, another accident equally serious, to which M. Béhier directs particular attention, as it has not been as yet described in books; viz., a certain degree of stupor experienced by the patient when the blood injected exceeds a certain quantity, which may end in death by coma. Fortunately this may be averted by stopping the injection directly the patient is seized with coughing, which M. Béhier looks upon as a precursory or warning symptom of the above condition; and the explanation is in the too rapid repletion of the capillaries of the lungs. The quantity of blood to be injected should not exceed three ounces. There are still two other sources of danger in transfusion which ought not to be overlooked; the entrance of air into the veins, which generally proves fatal, and the coagulation of the blood, which is equally fatal by producing a mechanical obstruction to the circulation. It is therefore obvious that in the practice of transfusion measures ought to be taken to prevent such dangerous accidents. The instruments now in use are very defective.

Cold Baths in Typhoid Fever.—Dr. Béhier, of Hotel Dieu, Paris, in a recent clinical lecture on Brand's method of treating typhoid fever, thus sums up (Practitioner) its advantages:

"By means of a few baths administered in each twenty-four hours we succeed in beating down and mastering a febrile movement which every thing seemed to show would be violent and lasting. In satisfying this essential indication, the

lowering of temperature, hydrotherapy weakens at the same stroke almost the whole group of the symptoms of typhoid pyrexia. The nervous centers are the first and the most happily influenced; the delirium departs, the intellectual torpor is banished, the patient comes back to himself, and interests himself in what surrounds him; at the same time the carphology, the *subsultus tendinum*, and all the other indices of profound nervous perturbation disappear. The respiratory center also participates in this remarkable modification; the inspirations become deeper, slower, more powerful; hematosis is effected more completely, and the bronchi, resuming their contractility, expel the secretion which obstructs them. The skin resumes its tone and its suppleness; the blood, propelled by the heart in stronger and more regular waves, circulates more actively and revives the stagnant secretions. Even the digestive canal presents a notable improvement, the tongue cleans and becomes moist, thirst subsides, and tympany diminishes."

Turpentine in Renal Affections.—Dr. E. Martel, of St. Malo, records the following interesting cases in which turpentine proved of great service:

A man, aged forty-five years, fell in the dark from a height of twelve or fourteen feet on some Dutch tiles. The left side was injured. The next day a large contusion was apparent on the left side, with a fracture of the corresponding iliac crest, the fracture separating a portion parallel to the border of the bone. From the time of the accident a considerable quantity of blood passed with the urine. On the succeeding days the ecchymosis became more and more pronounced and the hematuria continued unchanged. There were no clots, but the blood was mingled with the urine, and a reddish black deposit took place. There was no pain nor any sign of lesion of the bladder. There were few or no febrile symptoms. The treatment was in the first instance external; but

in consequence of the persistence of the hematuria M. Martel administered turpentine in capsules internally, and found that in twenty-four hours the urine became limpid, and in ten days more the patient was able to travel. M. Martel has no doubt that in this case some lesion of the kidney occurred, and the action of the turpentine was in accordance with the old notions of its being a hemostatic.

In the second case recorded by Dr. Martel a gentleman in good circumstances saw his father die from cancer of the stomach, and from apprehension that he should himself be a victim to it became hypochondriacal, with some gastric derangement, indicated by slight pain and flatulence. The impairment of his wife's health necessitated relative continence. The spermatic discharge became red, and resembled the pulp of the gooseberry stained with blood, the staining probably taking place in the vesiculæ seminalis. No gonorrhea either past or present. M. Martel adopted a general tonic line of treatment, with cold baths; but finding no improvement take place sent him to Professor Gubler, who prescribed turpentine, and under this treatment complete recovery occurred. (*Bulletin Général de Thérapeutique*, liv. 8, 1873.)

The Growth of Cicatrices.—Mr. W. Adams, in a paper read before the Medical Society of London, demonstrates that scars made in childhood grow with the general growth of the body. He exhibited casts taken at different periods of life, in some of which a growth of as much as an inch had taken place in the course of six or seven years. After deep wounds, or when a portion of skin has been destroyed. the cicatrix appears to be persistent through life. Although all cicatrices at the time of their formation are much less than the wounds from which they result, still if the wounds should be made in early childhood the resulting cicatrix will be at the completion of growth very much larger than the original wound; but cicatrices of wounds made after

the completion of growth maintain through life the same proportions. With regard to the wearing out of scars, Mr. Adams thinks that those scars only wear out which result from superficial cuts, which do not penetrate fairly through the deeper layers of the skin into the subcutaneous fat. (British Medical Journal.)

THE TREATMENT OF PNEUMONIA IN CHILDREN.—Dr. Wm. Stephenson, in a series of articles contributed to the Edinburgh Medical Journal, entitled "Children's Hospital Papers," thus speaks of the management of pneumonitis:

"The treatment adopted in the cases recorded, except where otherwise stated, consisted of warm poultices to the chest and a simple mixture containing acetate of ammonia, so that they may be regarded as having run their natural course uninfluenced by medicine.

"Treatment may be directed toward very different ends, and it is part of the physician's art to determine for what purpose his aid is required. Many cases occur where nothing further is necessary than to place the patient under the most favorable circumstances for recovery. Some remedial measures are required in others, not as against the disease, but to relieve the suffering and promote the comfort of the patient. At times also concurrent phenomena may arise, endangering life, distinct from the phenomena proper to the disease, and these must be met. While, lastly, the treatment may be directed against the disease proper, with the aim of modifying or cutting short its course.

"Nothing I know of in medicine entitles us to expect that we can ever change for good the well-marked typical course of acute pneumonia. Before ever the patient can be brought under our care the system has received a morbid impulse, by which a pyretic wave has arisen which will run its course. There can be no true cutting short the disease. Where such a term is used it can only apply to the prolongation out

of due limit of the affection. Any time after the fifth day a rapid and favorable termination may occur, and this natural course has undoubtedly led in former times to very erroneous opinions as to the result of active interference.

"*The test of treatment should be the closeness with which the fever accords to the normal type.* It is not necessary to show any material lowering of temperature or pulse so long as these are within the normal range; but it is essential, whether the range is affected or not, that the typical course should be retained. Should the treatment adopted succeed in lowering the range during the first five or six days, but at the same time the chart show a divergence from the normal character as regards crisis, and especially if the stage of convalescence is delayed, then I should regard such treatment as unsuccessful and meddlesome, although it terminated in recovery.*

"When the range of temperature or pulse is above the normal for the disease, or the one out of due relation to the other, such excess should be combated. And if evidence of reduction is found, it is then legitimate to gain it at the expense of protracting the recovery. If, again, life be endangered by any special condition, the means of counteracting it may likewise be bought at the expense of the convalescence. But, with these exceptions, the value of therapeutic agencies is only to be estimated by the accordance with the typical character of the disease.

"The alchemists of old were great experimentalists, and succeeded in forming many chemical substances; but the science of chemistry made no advance so long as air and water were regarded as elements, and that phlogiston entered into and devoured a body like a ravenous animal. Nor is our position far different so long as we regard and treat fever and inflammation as either simple or invariable compound

* This, according to M. Barthez, is the effect produced by indiscriminate active measures, especially blood-letting.—*Syd. Society Year-Book*, 1862.

states, or that there is any entity in disease, to be met by the same treatment in all cases. That fever is a complex state, and that its elements enter into varying proportion with one another, is duly recognized in the science but much less so in the art of medicine. We have two of its elements, and are able to estimate and record them in the temperature and pulse, and these have of late been too much regarded as the sole representatives of fever. But there is another element which we can as yet but inferentially estimate and can not record, and on this account probably it has been too much lost sight of.

"Physicians in feeling the pulse constantly take cognizance of more than its rapidity; the character is all-important. We constantly see the same phenomena, especially nervous symptoms, occurring under two very different and opposite states of the system. The same temperature may occur at the beginning and at the end of a fever, but with different significance. Why is the diurnal range of temperature at the beginning of a fever so much more steady than at the end? Why are some febrile states characterized by great oscillations between morning and evening temperature? There is an important something in all these which is not directly represented in our charts, but of which in treatment we must take cognizance. This something I am in the habit of speaking of as tension, a term used in electricity, and probably a closely-allied condition to what it there represents.

"The estimation of this condition is of great importance. The degree of tension makes up the difference between two cases which may present the same average temperature. Treatment may be directed toward it, and we may succeed in lowering the tension without affecting the temperature; another point which is too much overlooked at the present time, when temperature is taken as the chief representative of fever. The relative range of temperature and pulse, I am inclined to think, may yet afford us some means of estimating

the tension. Thus in the case of Lonie (No. 3) there occurred the temperature of 106°, with a pulse relatively much too low—viz., 124—and the tension at the time was very high; while in other cases 104° was associated with a pulse of 130 to 136; and this is just the condition which physiology teaches us would exist. On the other hand, as we have seen, the fatal cases presented a pulse relatively too high for the temperature. If I am right in my inference, successful treatment may be represented by an actual rise in the rate of the pulse.

"The influence of tension on temperature may also perhaps be seen in the degree of oscillation between morning and evening, where tension is great, as at the beginning of the inflammatory attack the range is even, but when slight the oscillations increase; and when they have been well-marked and a complication occurs, as in the case with empyema, the temperature again becomes steady.

"Thus we may be able inferentially to deduce the amount of tension from the data on our charts, and the evidence so gained must be carefully weighed in deducing the results of treatment. In the treatment of acute febrile diseases the attention of the profession has lately been entirely directed to the reduction of the pulse and temperature, and the value of remedial measures estimated by this alone. By so doing it is my opinion that we lose sight of many important indications, and are apt to overlook much benefit that may be derived from remedies which do not affect directly the temperature. If the height of the temperature is within the normal type of the disease, and if the pulse is within the normal relation to that temperature, little good will be got by any attempts to alter their range, etc.

"As I have already pointed out, the prognosis of pneumonia depends much less upon the height of the temperature alone than upon the relation of pulse and temperature. It is therefore to this point our attention should be addressed, and

to the other means whereby what I have termed tension may be estimated.

"The use of warm compresses to the chest is of great value in all cases. Where tension is great, and where head-symptoms are present, the whole body may be placed in a warm 'pack.' No means is more conducive to the comfort of the patient; the general uneasiness and sense of fullness of the system is allayed and natural sleep induced. At the same time, it must be remarked, I have never observed any decided change in the temperature or pulse from the use of the pack, but nevertheless the quiet and comfort afforded thereby is very evident.

"Where further means are necessary to reduce tension, we have the selection of three valuable remedies—aconite, antimony, or ipecacuan; but the good to be got from these is only within the first thirty-six or forty-eight hours. They should not be continued longer, and never, for any theoretical action upon the lung-lesion, should they be given when the pulse is relatively high for the temperature. The large majority of cases indeed may be best treated by ipecacuan or aconite and acetate of ammonia. The value of aconite in acute inflammatory disease may be denied if we judge of it by its power of lowering pulse and temperature or cutting short the disease. Looking for its action in these quarters, I long disbelieved in its good effects, but have lately had my confidence in it renewed by observing the increased comfort of the patient and the lowering of the tension where high under its use. I have not yet, however, been able to record a definite action in the clinical chart to change mere opinion into conviction. In Case V (John Gill), where aconite was given throughout the febrile attack, it is worthy of note how the convalescence was prolonged by recurring high temperatures. Without assigning this to the effect of the unnecessarily prolonged use of the remedy, the circumstance must be noted at present in connection with it.

"In a few rare cases, in healthy children, where the onset of the disease is associated with considerable dyspnœa, blood-letting by leeches between the scapulæ may be employed with undoubted effect; also when pain in the chest is very severe and preventing rest a single leech to the seat of pain will afford great relief.

"Where the pulse is high in relation to the temperature quite an opposite line of treatment must be followed. Here quinine, iron, and digitalis, singly or in varying combination, are the remedies indicated. In pneumonia occurring amidst the sequelæ of scarlet fever I have seen good results also from belladonna. The selection must turn upon the due recognition of the constitutional state giving rise to the inordinate pulse. Various conditions may so act; the effect of the high temperature upon the nervous system, the amount of blood-deterioration, a general cachetic state, or simple atony of the muscular vascular system.

"Several remedies may likewise be employed to minister to the comfort of the patient. I would specially mention morphia and spirit of chloroform.

"Salines may be given from the first, in combination with the other medicines enumerated, and their use may be continued with benefit after the febrile stage has passed off, during the process of resolution. In this stage alone, and when the health of the child has been previously good, is any benefit ever to be derived from the use of mercurials. Where the process of resolution is tardy or has been arrested I have seen decided benefit from *small* doses of mercury."

Fissures in Ano treated with Iodoform.—Dr. Francesco Parona gives his experience of iodoform in fissures of the anus, and strongly recommends it. He believes it acts in great measure as a local anæsthetic, "which allays the spasm of the sphincter during defecation, while it favors cicatrization by neutralizing the irritating effects of fecal matters which

remain on the ulcerated surface." It has also a direct healing action. Dr. Parona uses the iodoform as an ointment (one part to three of lard), and applies it on a small cylinder of charpie of a size requiring but little force for its introduction. The charpie has the advantage that its filaments adapt themselves readily to the slight irregularities of the anal mucous membrane. The dressing is changed twice a day, and replaced after each motion, and in the majority of cases the pain and spasm caused by the fissure cease in a few days, and the patient is well in a relatively short time. Of four cases, of which details are given, the longest time was twenty days, while one of the patients had been ill four months previous to the treatment. (Medical Times and Gazette.)

A Novel Remedy for Hooping-cough.—Dr. J. E. Wendel, of Murfreesboro, Tenn., writes:

"I was called three weeks ago to see a little white girl, seven years of age, who had had pertussis four weeks; had been coughing, hooping, and vomiting furiously. I visited her to see what injuries she had received from falling from the second to the first floor of the dwelling (fourteen feet) striking on her back on the floor. When I arrived she had recovered consciousness, but complained of some pain through the chest. The next day she was up and has been to this time, and seems to be entirely cured; coughs almost none at all; does not hoop any. Three or four other children in the same family, who contracted the disease at the same time, are still coughing, hooping, and vomiting. I do not recommend the remedy, but give it as one of the curiosities of my experience. The explanation of the cure is, I apprehend, easily given."

Notes and Queries.

SULPHATE OF QUINIA AS A PREVENTIVE OF FEVER.—Our readers may remember a paper, by Dr. Littell, of Philadelphia, published by us some years ago, in contravention of the commonly-received opinion of the malarious origin of our autumnal fevers; attributing them instead to variations of electrical tension acting on systems debilitated by the heat of summer, and suggesting the use of quinine as a preventive. The following extract from Frank Vincent's "Land of the White Elephant," a book recently published by the Harpers, is confirmatory of the view taken by that gentleman in regard to the prophylactic influence of the article mentioned:

"It was our practice to walk" (across Southern Siam) "as much as eight miles every day, the remainder being accomplished on horseback; and the sun being excessively hot at noon and night, we were, of course, much exhausted. At such times two or three grains of quinine soon wrought a happy change in our feelings. Quinine taken as a precaution or an (almost) preventive of fever is an invaluable medicine every where in the tropics. It is a powerful tonic, and if used in moderation strengthens and builds up the system, leaving no unpleasant effects, no depressing reaction; besides, a large quantity may be carried in small bulk, and with the addition of a little water, or even taken dry, it is always in readiness for immediate use."

Dr. Hutchinson, of Bangkok, recommended the travelers to take every morning three grains in their coffee.

DR. GEORGE THOMPSON.—In "Some Recollections of the Medical Society of Tennessee," published by the writer two years ago, the name of Dr. George Thompson was mentioned as one of the few early members of the society who still survived. A few days since we received intelligence of the death of this old friend, the last pupil whose private medical education was pursued under the same roof with the writer. He died at Gallatin, on the 2d day of April last, in the seventy-ninth year of his age, with a memory unimpaired, and all the powers of his mind active until within a few hours of his death. He was attending a meeting of the session of his church, and while thus engaged was smitten with apoplexy and had to be carried home. He never rallied, but died in a few hours. His life was "a long disease," and yet few physicians have pursued their profession more laboriously. In every sense of the word he was a good physician.

L. P. Y.

THE AMERICAN MEDICAL ASSOCIATION.—The Twenty-fifth Annual Session will be held in the city of Detroit, Mich., on Tuesday, June 2, 1874, at 11 A. M.

"The chairmen of the several sections shall prepare and read in the general sessions of the association papers on the advances and discoveries in the past year in the branches of science included in their respective sections. . . ."—*By-laws*, art. ii, sec. 4.

SECTIONS.

Practice of Medicine, Materia Medica, and Physiology—Dr. N. S. Davis, Chicago, Ill., Chairman; Dr. George E. Frothingham, Ann Arbor, Mich., Secretary.

Obstetrics and Diseases of Women and Children—Dr. Theoph. Parvin, Indianapolis, Ind., Chairman; Dr. Montrose A. Pallen, St. Louis, Mo., Secretary.

Surgery and Anatomy—Dr. Samuel D. Gross, Philadelphia, Pa., Chairman; Dr. Alonzo Garcelon, Lewiston, Me., Secretary.

Medical Jurisprudence, Chemistry, and Psychology—Dr. A. N. Talley, Columbia, S. C., Chairman; Dr. E. Lloyd Howard, Baltimore, Md., Secretary.

State Medicine and Public Hygiene—Dr. A. N. Bell, Brooklyn, N. Y., Chairman; Dr. A. B. Stuart, Winona, Minn., Secretary.

"Papers appropriate to the several sections, in order to secure consideration and action, must be sent to the secretary of the appropriate section at least one month before the meeting which is to act upon them. It shall be the duty of the secretary to whom such papers are sent to examine them with care, and, with the advice of the chairman of his section, to determine the time and order of their presentation, and give due notice of the same. . . ." *By-laws*, art. ii, sec. 5.

The following committees are expected to report:

On Cultivation of the Cinchona-tree—Dr. L. J. Deal, Pennsylvania, Chairman.

On the Treatment of Fractures—Dr. Lewis A. Sayre, New York, Chairman.

On Gynecology—Dr. M. A. Pallen, Missouri, Chairman.

On some Diseases peculiar to Colorado—Dr. John Elsner, Colorado, Chairman.

On Rank of Medical Corps of the Army—Dr. J. M. Keller, Kentucky, Chairman.

On Prize Essays—Dr. G. K. Johnson, Michigan, Chairman.

On the Progress of Otology—Dr. D. B. St. John Roosa, New York, Chairman.

On American as compared with Foreign Winter Cures—Dr. H. R. Storer, Massachusetts, Chairman.

On Railroad Injuries—Dr. W. F. Peck, Iowa, Chairman.

On the Therapeutics of Ammonia—Dr. P. J. Farnsworth, Iowa, Chairman.

On the Relation of Physiology to the Practice of Medicine—Dr. E. W. Gray, Illinois, Chairman.

On Puerperal Fever—Dr. W. O. Smith, Kentucky, Chairman.

On the Legal Relations of Moral Insanity—Dr. E. L. Howard, Maryland, Chairman.

The following amendments to the Plan of Organization are to be acted upon:

By Dr. N. S. Davis, Illinois: Strike out the second paragraph of Art. II and insert the following: "The delegates shall receive their appointment from permanently organized state medical societies and such county and district medical societies as are recognized

by representation in their respective state societies, and from the Medical Department of the Army and Navy of the United States."

Also strike out the fourth paragraph of same article and insert: "Each state, county, and district medical society entitled to representation shall have the privilege of sending to the association one delegate for every ten of its regular resident members, and one for every additional fraction of more than half that number. The medical staffs of the army and navy shall be entitled to four delegates each."

By Dr. P. Pineo, of Massachusetts: Art. II, second paragraph, after "army and navy," insert "and the Marine Hospital Service of the United States." By-laws, sec. 6, after "the chiefs of the bureaus of the army and navy," insert "and the supervising surgeon of the United States Marine Hospital Service."

By Dr. E. L. Howard, Maryland: Strike out the second clause of first paragraph, Art. IV, and insert: "They shall be nominated by the Judicial Council, and shall be elected by vote on a general ticket."

By Dr. A. S. Maxwell, of Iowa: "Resolved, that in view of the many and important duties imposed upon the Nominating Committee, the medical society of each state and territory that elects delegates be requested when selecting delegates to nominate one member of such delegation as their member of the Nominating Committee, and also designate the mode of filling vacancies."

By Dr. A. M. Pollock, of Pennsylvania: Art. VI, first paragraph, strike out the word "five" and insert "ten." By-laws, Art. V, first paragraph, strike out "five" and insert "ten."

Secretaries of all medical organizations that have adopted the Code of Ethics are respectfully requested to forward to the undersigned a complete list of their officers, with their post-office addresses, and the number of their members in good standing. This is the only guide for the Committee of Arrangements in determining as to the reception of delegates. It will also enable the Permanent Secretary to present a correct report of the medical organizations in fellowship with the association.

W. B. ATKINSON, *Secretary*,
1400 Pine Street, Philadelphia.